MC 2001222 NOT 7222A

> P.O. Box 2453 Hyannis, MA 02601 508-362-1117



August 27, 2000

Mr. Jim Hall Chairman National Transportation Safety Board Washington, D.C. 20594

Dear Mr. Hall,

Cape Cod Duckmobiles is a sightseeing company that has been operating amphibious passenger vessels in Hyannis, Massachusetts since 1996. Our fleet is comprised of one DUKW and one LARC. Although we were remiss in composing a formal response to the Safety Board's Safety Recommendation M-00-5 issued in February of 2000, we have worked diligently with our local Coast Guard inspectors and have implemented several safety improvements prior to the start of the 2000 season.

Some of the modifications and improvements that we have made to our vehicles are listed below.

## DUKW 353-18866 (1945 GMC)

- Installation of a drive shaft housing restrictor plate. This plate is constructed of thick rubber and designed to reduce the possibility of uncontrolled flooding by reducing the diameter of the through hull penetration. (See Photographs DSCF0041.JPG & DSCF0048.JPG on the attached sheet).
- Installation of two bulkheads (one forward and one aft of the driveshaft through hull penetration). Although these bulkheads are not water tight, they have been designed to greatly reduce the possibility of water rushing to the stern in an uncontrolled flooding situation due to rubber boot failure. (See photographs DSCF0045 & DSCF46.JPG on the attached sheet).
- Installation of a 9" wave / splash-guard around the base of the back deck to reduce the possibility of the stern being swamped.
- Replacement of the original 4" diameter drain plugs with 1" diameter drain plugs. (a total of 4 plugs).
- Installation of 5 electric bilge pumps with high water lighted alarm indicators.
   (These pumps will operate even if engine failure occurs).

Installation of one high water audible alarm.

Also, please note that the entire underside of this vehicle was replaced with new steel plate in the winter of 1999.

LARC (Borg Warner 1961)

• Installation of 2 audible high water alarms. This vehicle has 3 electric bilge pumps with high water lighted alarm indicators.

As owner / operators of Cape Cod Duckmobiles, passenger safety is of utmost importance to us. The tragedy of the Miss Majestic incident and the consequent investigation and findings made public in Memphis Tennessee by the NTSB have enlightened us to the vulnerabilities of amphibious sightseeing vehicles. We, in conjunction with our local Coast Guard inspectors, are currently in the process of investigating ways to further implement passive safety systems as recommended by the board. We will continuously work to make our vehicles as safe as possible and train our personnel to operate them accordingly. Thank you for your guidance on these matters. Please feel free to contact us should you have any further questions or concerns regarding our company's operation.

Sincerely,

Tim O'Rouke Vice President Mr. John Britton
President
Cape Cod Duckmobiles
Post Office Box 2453
Hyannis, Massachusetts 02601

Dear Mr. Britton:

Thank you for Mr. Tim O'Rourke's August 27, 2000, response to the National Transportation Safety Board's Safety Recommendation M-00-5, stated below, that resulted in the Board's investigation of an amphibious excursion boat accident that occurred in Hot Springs, Arkansas, on May 1, 1999.

## M-00-5

Without delay, alter your amphibious passenger vessels to provide reserve buoyancy through passive means, such as watertight compartmentalization, built-in flotation, or equivalent measures, so that they will remain afloat and upright in the event of flooding, even when carrying a full complement of passengers and crew.

The Safety Board notes that the Cape Cod Duckmobiles is currently in the process of investigating ways to further implement passive safety systems as recommended by the Board and will continuously work to make its vehicles as safe as possible and train personnel to operate them accordingly. The Board further notes that Cape Cod Duckmobiles has taken several actions to improve the safety of its amphibious vehicles.

These actions are important steps toward improving the safety of your vessels. However, the Safety Board stresses to you the importance of providing reserve buoyancy through passive means in addition to the measures you have already taken. Given the September 18, 2000, sinking of an Alvis Stalwart amphibious passenger vessel on Lake Michigan, near Milwaukee, Wisconsin, the Safety Board is more convinced than ever that action to provide reserve buoyancy for these types of vessels is needed without delay. Pending notification that you have made the requested alterations and a description of these additional alterations, Safety Recommendation M-00-5 is classified "Open—Acceptable Response."

Thank you for your interest in transportation safety.

Sincerely, ORIGINAL SIGNED BY JIM HALL

Jim Hall
Acting Chairman

Mbrown:SR10:drafted 9-7-00; clean-draft: 10/3/00sp; revised w/ms1 words 11-8-00 mb;

final: 11/21/00sp

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Symbol	SPEC.	EDITOR	CHIEF	M5-10/3C		OKY	. 4	/	in
Date	9-7-00		10/11/01	10/14/80	11/8/00	now.	WW	/	11-15-00
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